Fdr. 459.

CLASSIFICATION SECRET 25X1

CENTRAL INTELLIGENCE AGENCY

INFORMATION REPORT

REPORT

CD NO.

COUNTRY East Germany

DATE DISTR. 3 March 1954

SUBJECT Development Work at Funkwerk Koepenick Including Meddo Equipment

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SUPPLEMENT TO REPORT NO. 25X1

THIS IS UNEVALUATED INFORMATION 25X1

1. In mid-July 1953, the Meddo equipment developed by Funkwerk Koepenick had reached the stage at which the principal arrangement of the set was determined, the impulse central was fully developed, and the indicator unit was being worked on. Some modifications were considered on the basis of the study of recent American publications, including a built-in device to narrow or widen the indicating range in certain limits, and automatic operation of the bandswitch of the multivibrators. A checking oscillograph was scheduled to be built into the first set. Engineers responsible for the development of the set included Dipl. Ing. Grimm; for the development of the impulse central and the indicator unit, Dipl. Ing. Dobesch. The set was to be tested on a tower erected close to the destroyed Bismarck Monument on the Mueggel hills for the operation of the VP decimetric net control station.

2. A similar, but essentially more simplified, set was scheduled to be developed for aeronautical purposes in the 1954 plan year, with the releasing impulse for the magnetron and the indicator unit being generated by a spark discharge through a velocity modulation chain. a development order for 25X1 this set had not yet been placed and that he was not informed on the precise wording of the task.

3. The TDR department was engaged in imitating Michael type decimetric sets for VP use.

4. The yellow painted distress transmitter produced by the works had a weight of 35 kg, a displacement of 50 kg and was suitable for operation by means of a battery clamped on the outside or a crank. The mechanical test included a fall on a water-surface from a height of 15 meters.

5. The echosounder developed by the works was operating with an impulse period of 1/s, a keying ratio (Tast-Verhaeltnis) of 1:135, an impulse power of 5 k.W., and by means of a magneto-striction oscillator and was scheduled for a range of 10 kilometers. A Braun' tube was first used as indicator unit. No decision had yet been made as to the final form.

6. Dr. Erich Schuettloeffel developed a twin-type multiple-unit directional antenna in Beelitz.

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25 YEAR RE-REVIEW

SI-S-6-8247

1. [redacted] Comment. For a wiring diagram and a decription of the Meddo-equipment, see Annex . 25X1

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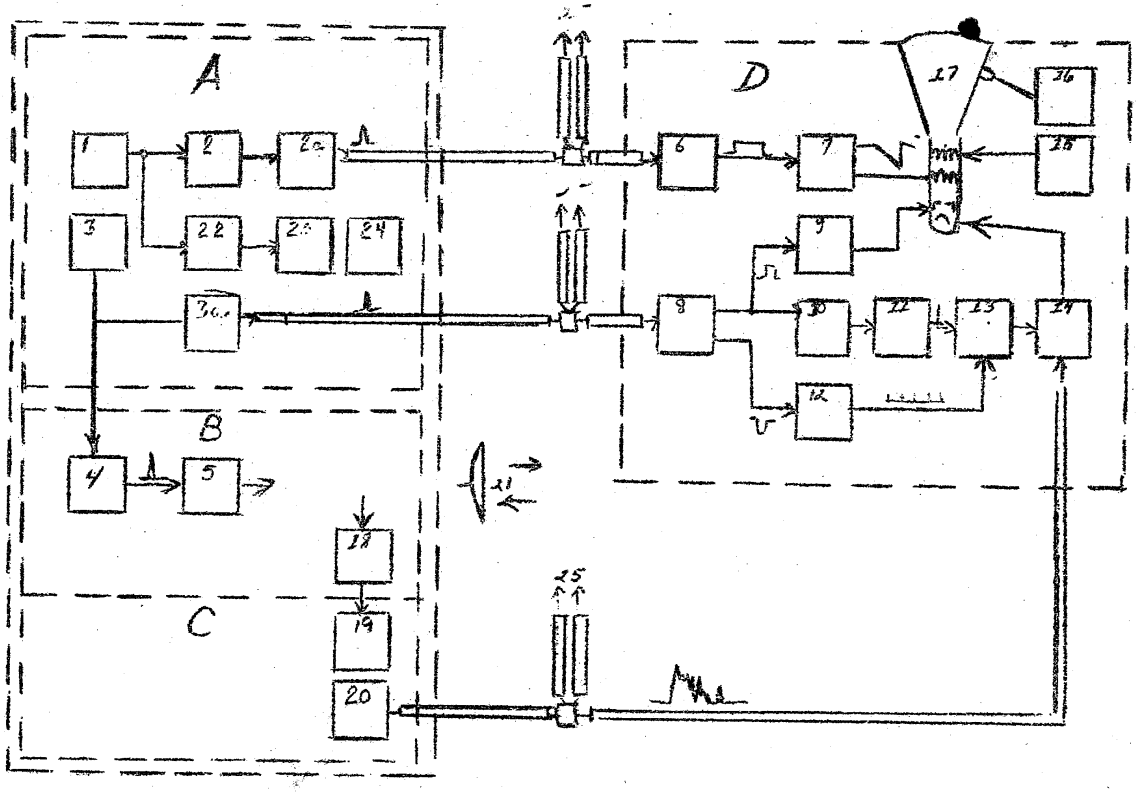
Legend.

Sketch I: Wiring diagram.
Sketch II: Arrangement of the main components with impulse central, transmitter and receiver.
Sketch III: Arrangement of the indicator unit.
Sketch IV: Arrangement of the frame of the indicator unit.

A: Impulse central with checking oscillograph.
B: Transmitter.
C: Receiver.
D: Indicator unit.
E: Adapter (Einordner).
F: Low tension net part.
G: High tension net part.
1. Mother generator for an impulse frequency of c.p.s. consisting of an oscillator in inductive three point connection which controls a blocking step through a cathode-follower amplifier. (6 SN 7, 6 AG 7, 2 x AZ 5)
2 Output amplifiers for the time-delay relays. The output amplifiers and proved necessary because cables with a characteristic impedance of
3: 150 ohm were employed for the transmission of impulses to the indicator unit. Up to parallel indicator units could be operated.
4: Special keying step in which the releasing impulse for the transmitter is generated through a velocity modulation chain. (LV 3, 5 D 21)
5: Transmitter step (OSW-730 type magnetron) which operates on a rectangle line with a loss of 0,24 db per meter.
6
and Tipping generator.
7:
6: (6AL 5, 6 SN 7).
7: (2 x 6 AL 5, 2 x 6 SN 7, 6 AG 7, LV 3).
8: Cathode-coupled multivibrator (2 x 6 SN 7).
9: Bright keying (6 SN 7).
10
and
11: Generation of a circuit corresponding to an adjustable distance.
10: (6 AG 7).
11: (6 AC 7, 6 SN 7).
12: Range mark generator generating circuits corresponding to specified distances. (6 SN 7, 2 x 6 AG 5).
13: Mixing step (6 SN 7).
14: Video type amplifier for common amplification of the video signals, the direction arrow, and the impulses for the range circuits. (6 AG 7, 6 AG 5, 6 AL 5).
15: Focussing (6 L 6).
16: High tension generator generating a tension of 8 k.W. by rectification of a frequency of 100 kc/s.
17: Indicator tube.
18: Composite set with klystron type oscillator.
19: Intermediate frequency amplifier operating at about mc/s.
20: Output amplifier.
21: Aerial (rotation parabolloid).
22: Delay step (6 SN 7, 6 AC 7).
23: Relaxation step (Kippstufe) (2 x 6 SN 7).
24: Checking oscillograph (OR 1/100/2).
25: 150 ohm cable to 2 other indicator units.
26: Synchronous drive.
27: Network set of the indicator unit.



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Annex H

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